Note Supplementary to a Paper "On the Radio-active Minerals."

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In a paper read before the Society on February 28, 1905, I drew attention to the fact that all thorium minerals, so far as could be ascertained, appeared to contain uranium and radium. Since then, I have examined a number of additional minerals, in order to test the induction further. The result has been quite confirmatory of the original conclusion. I have, in this further investigation, contented myself with determining the thorium and radium, for it may now be considered proved that radium is a product of uranium, and it is much easier to establish the presence of radium by its emanation than to detect uranium by chemical analysis. The experimental methods explained in the former paper were employed. The results are as follows:—

Mineral.	Locality.	Thorium oxide, per cent.	Radium, millionths of 1 per cent.
Thorite	Ceylon	61·0	1·00
„	Brevig, Sweden	53·9	0·81
Monazite	Johannesberg	5·94	1·06
Alvite	Raade Moss, Norway	4·95	1·81
Xenotime	„ „	3·89	0·90
Monazite	N. Carolina*	3·79	0·53
„	Nigeria	2·98	3·78
Anerodite ?	Ceylon	2·27	9·80
Monazite	Malay Straits	1·53	4·02
Fergusonite	?	1·31	26·7
Malacone	Hitteroe, Norway	1·15	1·40
Allanite	Amherst Co., Virginia	0·492	1·08
Yttrotantalite	Ytterby, Sweden	0·437	5·56
Polycrase	?	0·334	0·36
Zircon	N. Carolina	0·307	0·34
„	Virginia	0·217	0·52

In conclusion, I must express my best thanks to several friends, especially Professor W. R. Dunstan, for specimens of these minerals, which would, in some cases, have been impossible to procure otherwise.

* This consisted of pure grains of monazite, picked out from the commercial sand.